

In the Claims

Amend claims 24, 25, 27 and 57 to read as follows:¹

- D1
24. (Twice Amended) The method according to claim 57, wherein the noble metal residue comprises iridium, and the gas-phase reactive halide composition comprises XeF₂ and at least one halide species selected from the group consisting of SF₆, SiF₄, Si₂F₆, SiF₂ radicals and SiF₃ radicals, and wherein the microelectronic device structure is further contacted with a cleaning enhancement agent.
25. (Amended) The method according to claim 24, wherein the cleaning enhancement agent is selected from the group consisting of Lewis-base and electron back-bonding species.
- D2
27. (Amended) The method according to claim 24 wherein the cleaning enhancement agent comprises an agent for enhancing volatility of iridium fluoride species formed by said contacting of the microelectronic device structure with the gas-phase reactive halide composition.
57. (Amended) A method for removing from a microelectronic device structure a noble metal residue including at least one metal selected from the group consisting of platinum, palladium, iridium and rhodium, the method comprising contacting the microelectronic device structure with a dry etching agent consisting essentially of (i) a gas-phase reactive

D3

¹ Consistent with the requirements of 37 CFR §1.121, a marked-up copy of the amended claims ____ is set forth in Appendix A herein and a clean copy of the pending claims in the application is set forth in Appendix B herein. Consistent with the holding of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., et al., 535 U.S. ____ (2002), decided May 28, 2002, any amendments herein that hereafter are deemed to be narrowing amendments by a court of competent jurisdiction in a final unappealed or unappealable decision, are not intended to relinquish any scope of equivalents unforeseeable at the time of this amendment or that relate to aspects of the invention having only a peripheral relation to the basis of the amendment.

halide composition and (ii) optionally, an agent for enhancing volatility of metal fluoride species formed by said contacting of the microelectronic device structure with the gas-phase reactive halide composition (i), to remove the residue, with the proviso that when the dry etching agent is XeF₂ or a sulfur fluoride species, said noble metal residue includes at least one metal selected from the group consisting of palladium, iridium and rhodium.

Add new claims 59 and 61, as follows:

59. (New) The method according to claim 57, wherein said noble metal residue includes at least one metal selected from the group consisting of palladium, iridium and rhodium.
60. (New) The method according to claim 57, wherein said dry etching agent includes said agent (ii).
61. (New) A method of etching iridium, comprising contacting said iridium with XeF₂.

REMARKS

Amendment of Claim 25 to Overcome Examiner's Objection

In the May 22, 2002 Office Action, claim 25 was objected to, for reciting a Lewis base adduct as a possible cleaning enhancement agent.

In response, claim 25 has been amended to delete the word "adducts" consistent with the Examiner's suggested amendment of the claim.